

12HG7

Sharp-Cutoff Pentode

FRAME-GRID CONSTRUCTION

T9 ENVELOPE

9-PIN LARGE-BUTTON NEONVAL BASE

For Video Output Amplifier Service
in Color TV Receivers

Electrical:

Heater Characteristics and Ratings:

Heater-section arrangement	Series	Parallel	
Voltage (AC or DC)	12.6 ± 1.3^a	6.3 ± 0.6	volts
Current	0.260	0.520^b	amp
Maximum heater-cathode voltage:			
Heater negative with respect to cathode	200		volts
Heater positive with respect to cathode:			
Peak	200		volts
DC component	100		volts

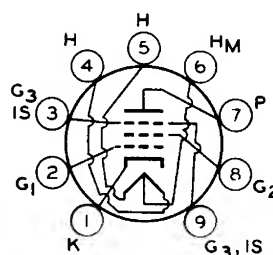
Direct Interelectrode Capacitances:^c

Grid No.1 to plate	0.15 max.	pf
Input: G1 to (K,G3+IS,G2,H)	14.0	pf
Output: P to (K,G3+IS,G2,H)	4.4	pf

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2.930"
Maximum Seated Length	2.620"
Length, Base Seat to Bulb Top (Excluding tip)	2.070" to 2.310"
Diameter	1.062" to 1.188"
Dimensional Outline	(JEDEC No.9-70)
Bulb	T9
Base	Large-Button Neonval 9-Pin (JEDEC No.E9-68)
Basing Designation for BOTTOM VIEW	9BF

- Pin 1 - Cathode
- Pin 2 - Grid No.1
- Pin 3 - Grid No.3,
Internal Shield
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Heater Tap
- Pin 7 - Plate
- Pin 8 - Grid No.2
- Pin 9 - Grid No.3,
Internal Shield



Characteristics, Class A₁ Amplifier:

Plate Supply Voltage	300	volts
Grid No.3	Connected to cathode at socket	
Grid-No.2 Supply Voltage	135	volts
Grid No.1	Connected to negative end of cathode resistor	
Cathode Resistor	47	ohms
Plate Resistance (Approx.)	60000	ohms
Transconductance	32000	μ mhos
Plate Current	31	ma



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Grid-No.2 Current 4.8 ma
Grid-No.1 Voltage (Approx.)
for plate $\mu a = 100$ -4.5 volts

CLASS A₁ AMPLIFIER

Maximum Ratings, Design-Maximum Values:

Plate Voltage 400 volts
Grid-No.2 (Screen-Grid) Supply Voltage. 330 volts
Grid-No.2 Voltage See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section
Grid-No.1 (Control-Grid) Voltage:
Positive-bias value 0 volts
Grid-No.2 Input:
For grid-No.2 voltages up to 165 volts. 1 watt
For grid-No.2 voltages between
165 and 330 volts See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section
Plate Dissipation 10 watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:
For fixed-bias operation. 0.1 megohm
For cathode-bias operation. 0.25 megohm

^a At heater amperes = 0.260.

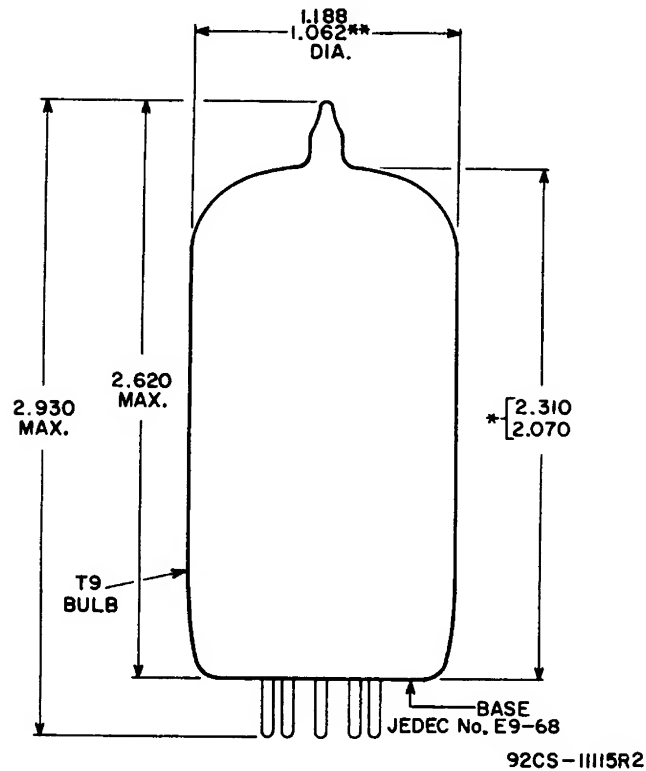
^b At heater volts = 6.3.

^c Without external shield.



DIMENSIONAL OUTLINE

JEDEC No. 9-70



DIMENSIONS IN INCHES

** Applies in zone starting 0.375" from base seat.

* Measured from base seat to bulb-top line as determined by a ring gauge of 0.600" inside diameter.

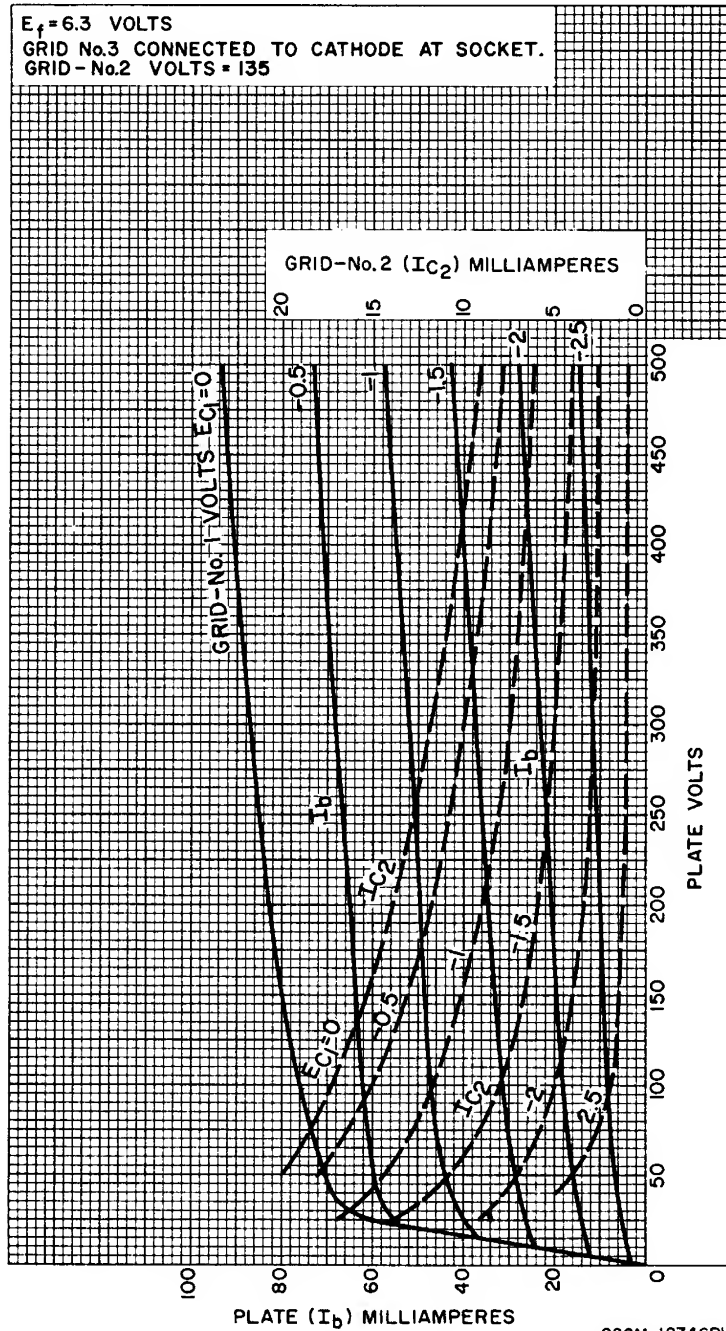


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AVERAGE CHARACTERISTICS



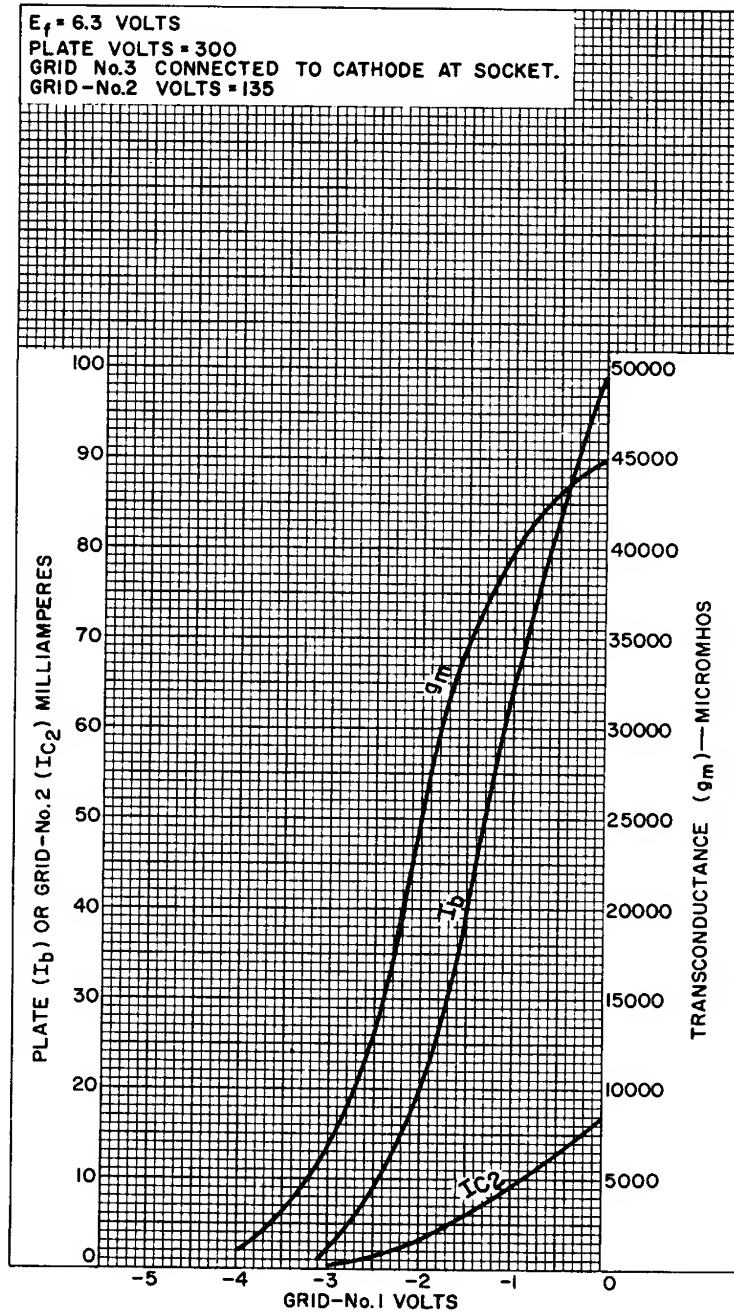
92CM-12746RI

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AVERAGE CHARACTERISTICS



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